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6 BATTLEFIELD DUST AND ATMOSPHERIC CHARACTERIZATION MEASUREMENTS DURING WEST GERMAN SUMMERTIME CONDITIONS IN SUPPORT OF GRAFENWIHR TESTS

MENNIGOMINGTITE GACI SEPTEMBER 1980

16/11/16= 11/1/17/1

10+ JAMES D./LINDBERG RADON B. LOVELAND MELVIN HEAPS JAMES B. GILLESPIE Andrew F. Lewis

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US Army Electronics Research and Development Command ATMOSPHERIC SCIENCES LABORATORY

White Sands Missile Range, NM 88002

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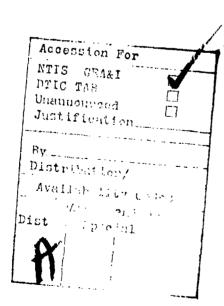
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20. ABSTRACT (Courtinus on reverse side if recognisty and identity by block number)

This report describes the results of an attempt to characterize the aerosol generated by 155 mm artillery projectile explosions by directly instrumenting Cascade impactors, filter samplers and a the expected impact area. particulate spectrometer were used to determine particulate composition and size distribution. From the resulting data which are presented here, calculation of mass loading and visible and infrared wavelength extinction were made and are included. These results are unique in that they show the effect of projectile explosions just a few feet away from the instrumentation  $_{c}$  C(3)

## 20. ABSTRACT (cont)

with a time resolution of 1 second. Mass loadings as high as 2 gm/m were detected; ext notion was not significantly wavelength dependent. The conclusion was that one can, as a practical matter, directly instrument the impact area during artillery barrage firings with an acceptable, though not trivial, risk to equipment. The test was conducted at an artillery training area near Grafenwöhr, Germany, in June 1979. A description of the meteorological situation is included.



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#### INTRODUCTION

During June 1979 near Grafenwöhr. West Germany, the Night Vision and Electro-Optical Laboratory conducted a series of tests (known as "GRAF-1I-Summer") to evaluate the performance of certain electro-optical devices in simulated European summertime battlefield conditions. This test involved visible, infrared (IR), and millimeter wave propagation along paths through an impact area into which large numbers of 155-mm high explosive (HE) and white phosphorous (WP) smoke projectiles were delivered by combat operational artillery units. Statically detonated rounds of both types were also included so that the effects produced by single explosions at known locations could also be observed.

The Atmospheric Sciences Laboratory (ASL) provided supporting meteorological measurements for this test and obtained particle distribution and composition information for the explosion generated dust clouds. The latter measurement imposed some serious problems on the test design since it called for installation of a particulate spectrometer and sampling equipment directly in the artillary impact area. Operational requirements imposed by the test circumstances procluded the use of airborne payloads, instrument control, or data transfer by telemetry or hard line and restricted access to the site to a period of about 1 h each day. Nevertheless, some useful and undoubtedly unique results were obtained. This report is documentation of the meteorological and aerosol characterization work that was done by the ASL.

## METEOROLOGICAL MEASUREMENTS

This section relates the synoptic scale meteorology to the actual weather conditions which were observed during the GRAF-II-Summer testing period of 18 through 29 June 1979. The objective is to provide a basis for extending the observed test results to other situations where similar climatological parterns or weather conditions exist. This section is divided into three parts. The first part describes the general climatology and physical setting of the area and gives a brief day-by-day overview of the synoptic patterns which affected this area during the test pacies. The second part describes the additional weather data which were gathers; and are available for further analysis. The third part details the resistence and are available for further analysis. The third part details the resistence and determined (Pasquill) stability categories for use in estimates and calculations of smoke and dust cloud dispersion.

#### Brief Overview

The Grafenwöhr test range lies in Southeastern Germany (49°43' N, 11°55' E) approximately 40 km west of the Czechoslovakian border. The area consists of gently rolling hills, partially forested and partially farmland, with elevations between 400 and 500 m and occolonal ridges or high points rising to 500 to 600 m. The area lies just to the Danube side of the dividing line between the Danube and Main river basins. The Alph are a proximately 200 km

to the south, with no major mountains to the west or north; to the east the land rises to the Boehmerwald along the Czechoslovkian border with peak elevations of approximately  $1000\ m$ .

The weather during this early summer period is generally influenced by periodic high pressure cells moving across Europe and producing light and variable winds at the surface; more often a strengthening and an expanding of the Azores High produce a general wind flow from the northwest-southwest quadrant. Precipitation during these periods results mainly from thermally induced rainshowers and thundershowers in the afternoons and evenings. Interspersing the periods of high pressure are periods when low pressure cells, usually originating in the North Atlantic, move across northern Europe or Scandinavia. Frontal activity this time of year is only weak to moderate; precipitation usually accompanies "frontal" passage with winds shifting to a more northerly direction. Occasionally low pressure areas will form over France and move across Germany along the Alpen Forelands and the Danube River basin. Precipitation from these systems can be quite variable.

The weather the few days preceding the beginning of the testing period (Monday, 18 June 1979) was dominated by a large, reasonably well organized low pressure system which passed through northern Europe during the weekend of 16 to 17 June. The week began with cloud covered skies and very cool temperatures. High pressure moving in from the west on Tuesday brought clearing skies and warmer, drier air through Thursday. With the clearer skies, there were also patchy areas of radiation fog Wednesday, Thursday, and Friday mornings (20, 21, and 22 June). High pressure weakened during the week, but an approaching low pressure system on Thursday also weakened as it moved west to east across the continent Friday and brought no change in the weather to the southern German area. Returning high pressure gave fair weather for the weekend.

The second week of testing (25 to 29 June 1979) began with the weather being influenced by a rather broad low pressure system over the North Sea. Passage of the "front" triggered rainshowers very early Monday morning. Tuesday brought clearing skies and some patchy radiation fog Wednesday morning. A rather small, localized low pressure system formed over France passed over the Grafenwohr area Wednesday and produced rapid cloud buildup Wednesday evening and 12 hours of rain Wednesday night through Thursday morning. Clearing skies Thursday set the stage for very extensive radiation ground fog Friday morning, 29 June 1979.

Table 1 gives a brief overview of the general weather conditions for the 2-week period. Figures 1 through 10 provide the synoptic surface pressure patterns for the Monday through Friday, 18 through 22 and 25 through 29 June periods.

TABLE 1. OVERVIEW OF WEATHER GRAF-11-SUMMER JUNE 1979

MONDAY	Fuesday	AEDMESDAY	ĨHURSDAY	FRIDAY
18	19	20	21	22
Continuous cloud cover all day, stratocumulus and altostratus. Wind from the K, steady Temperatures 10° to 14° C	Continuous strato- cumulus cloud cover morning, breaking up by evening Winds from the N. variable, air drier Temperatures II* to 20° C	Light and patchy morning fog My ses generally clear with afternoon cumulus buildup, then clearing evening wind from E, light and variable  Temperatures 16° to 25° C	Light and patchy morning fog, otherwise extremely clear skies Normal afternoon fair-weather cumulus Winds calm to light and variable Temperatures 10° to 25° C	Light and patchy morning fog, clear skies Normal afternuon fair- weather cumulus Winds calm to light and variable Temperatures 10° to 26° C
25	52	27	28	29
Nain showers from mid- night to 03:00 Stratocumulus and alto- stratus clearing during day Winds light from the W Temperatures 15° to 21° C	Seneral light ground fog in the morning Partly cloudy skies with afternoon cumulus buildup, clearing towards evening towards variable Temperatures 11° to 25° C	Patchy morning ground fog, otherwise clear skie:  Normal fair weather cumulus buildup during afternoon Winds light and variable Temperatures 11° to 26° C Sudden increase in cloud cover 19:00 Rain beginning 20:00 and continuing through the night	Rain continuing until about 08:00 Gradual clearing during the day, clear by evening Winds variable Temperatures 16° tc 20° C	Very heavy morning ground fog Skies partly cloudy, cumulus, during day Winds light with increasing westerly component Temperatures 10° to 20° C

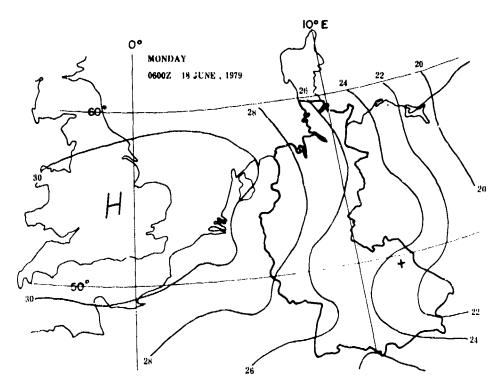


Figure 1. Synoptic scale weather map for 18 June 1979. Figures 1 through 10 show maps for the periods of Monday-Friday, 18-22 June and 25-29 June 1979, respectively. The pressure isobars in millibars are shown; only the last two digits are given (i.e., 1028 mbar becomes 28). The Federal Republic of Germany is outlined on the map and the Grafenwöhr test area is indicated by a "+" in the lower right-hand section.

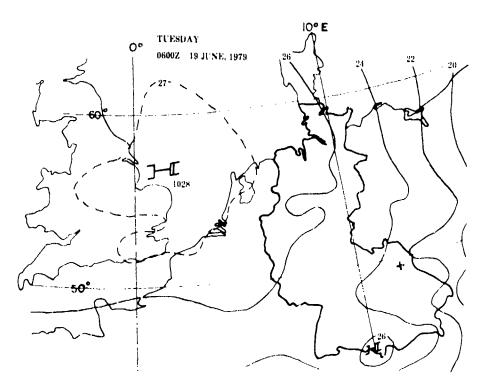


Figure 2. Synoptic scale weather map for 19 June 1979.

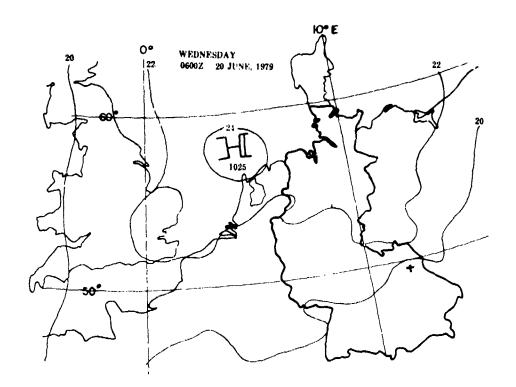


Figure 3. Synoptic scale weather map for 20 June 1979.

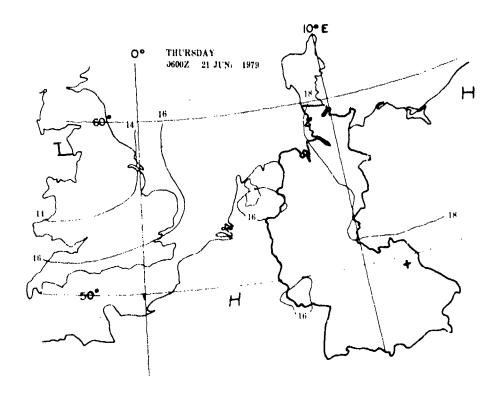


Figure 4. Synoptic scale weather map for 21 June 1979.

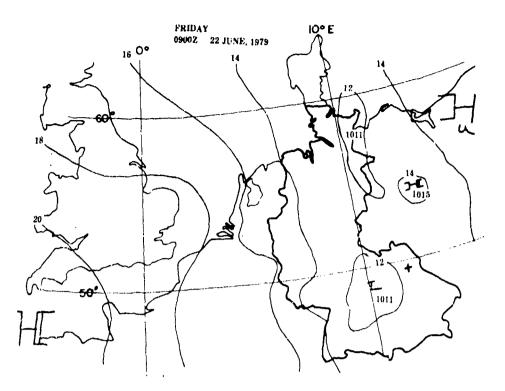


Figure 5. Synoptic scale weather map for 22 June 1979.

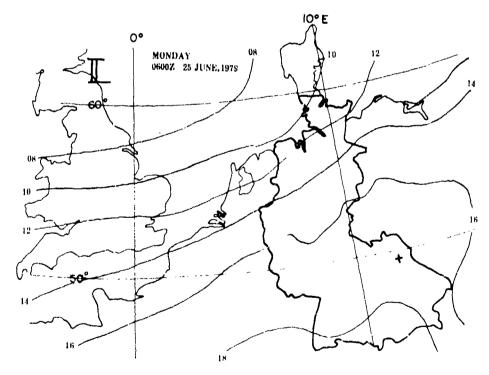


Figure 6. Synoptic scale weather map for 25 June 1979.

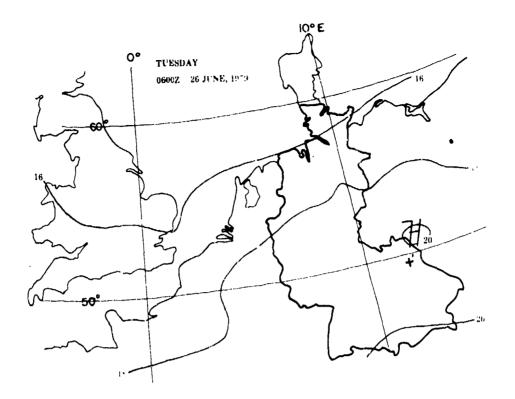


Figure 7. Synoptic scale weather map for 26 June 1979.

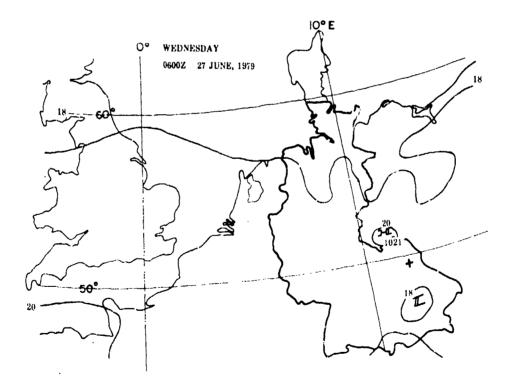


Figure 8. Synoptic scale weather map for 27 June 1979.

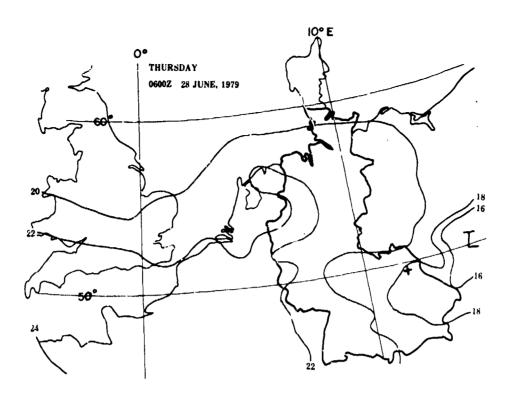


Figure 9. Synoptic scale weather map for 28 June 1979.

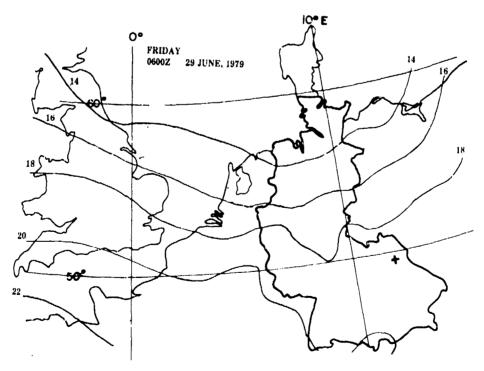


Figure 10. Synoptic scale weather map for 29 June 1979.

## Data Available for Further Weather Analysis

Several sources and sets of data are available which would be too cumbersome to include in this volume. Detailed synoptic analyses can be made through the use of the OOZ weather charts for the surface, 850, 700, and 500 mbar levels and O6Z surface charts which were provided by the Weather Office of the Second German Corps. All charts are on a Monday through Friday basis. Radiosonde data taken at O6Z from Amberg (40 km south of Grafenwöhr) were also provided in the form of skew T--Log p diagrams by the same office. Additional radiosonde data during or near the actual testing periods were provided in meteorological message format by the Vilseck US Army Meteorological Station (approximately 8 km south-southwest of the test area). Copies of the hourly Service Weather Observation records (Federal Meteorological Form 1-10) were also provided by the Weather Detachment at the Grafenwöhr Army Airfield (approximately 9 km east of the testing area).

Satellite photography of the synoptic scale cloud cover is also available in the IR and visible for the days of 17 through 19 and 21 through 26 June.

In addition a great deal of raw data is available from the two 50-foot meteorological towers in the testing area. This raw data will be partially discussed in the next part of this report.

## On-Site Meteorological Observations

The testing area used during the GRAF-II-Summer testraies in the northwest section of the larger Grafenwohr Artillery Impact Area. Zone 4, which was the impact area for our own tests, was located on a small rise of meadow with the land sloping gently away to both the north and south and then rising again to the sites REM 1 and REM 2 (figure 11). Fifty-foot meteorological towers were located at REM 1 and REM 2 and were instrumented to measure temperature, windspeed and (horizontal) wind direction at heights of 2, 4, 8, and 15 m. The line of sight from REM 1 and REM 2 lay approximately 12° west of a true south-to-north line. The REM 1 instrumentation area was situated on an approximately 20- by 90-m flat graded finger of land running east-west. The meteorological tower, called REM 1, was situated approximately 10 m east and about 2 m below this graded area and was surrounded by a sparse growth of bushes and scrub trees 1 to 2 m high. On-site observations were taken at REM 1 facing north towards RFM 2, looking across the impact area. located on ground sloping upwards to the north with stands of trees (= 20 m high) within 100 m to the west and north of the meteorological tower.

Periods of testing were from 0 0700 hours (local time) and 1900 to 2030 hours (local time). Actual firings were generally during the latter half of these periods. The following weather descriptions were taken from on-site observations at REM 1 and assembled meteorological data from the REM 1 and REM 2 meteorological facilities.

Generally, we felt that because of local terrain effects the "surface" winds, i.e., those measured at the 2- to 15-m levels at REM 1 and 2, were not always representative of what the surface winds may have been in the zone 4 impact area. This situation is particularly true when the winds are light and

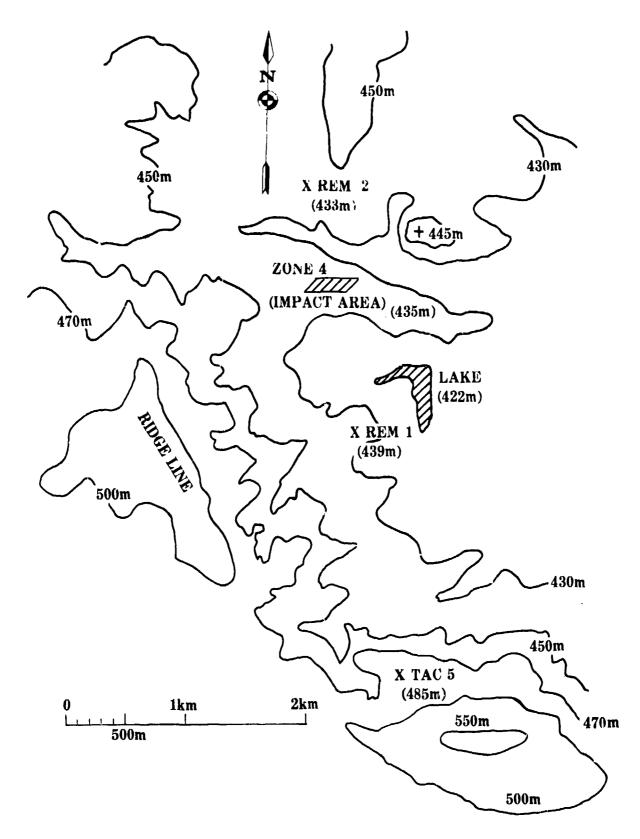


Figure 11. Topographical map of the general GRAF-II-Summer test area showing the locations of REM 1, REM 2, TAC 5, and the impact area (zone 4).

variable. At all times the measurements were taken 1.3 and 1.0 km away from the actual impact area. We felt that the physical location of the REM 1 site more closely approximated the setting of the impact area.

In choosing a format for meteorological data presentation, we decided to use a tabular form giving ranges of values observed over the actual barrage or firing periods--usually of a few minutes in extent. Because of the normal fluctuations in windspeed and wind direction, plus the separation of 1.0 to 1.3 km from the meteorological towers to the impact area of interest, it would not be reasonable to attempt any point-by-point correlations (in space or time). The data itself in its raw form has been averaged over 20-s intervals with nominal accuracies 0.5 mi/h in windspeed, 5° in direction, and 0.10°C in temperature. A variation in temperature has been indicated by the range of values listed; in most cases, the increases or decreases were monotonic over the time intervals.

Stability categories have also been estimated for the general testing sequences. Because of the early morning or late evening times for the tests, the predominant Pasquill stability category was D.

The specific day-by-day accounts follow next.

Monday, 18 June. The general airflow was cyclonic from the north. A strong inversion was present at 830 mbar with a few scattered rainshowers developing below the inversion layer during the afternoon. By evening the winds had died to light and variable. Skies were overcast with partial stratocumulus cover at about 1300 m and almost complete altostratus cover at about 2400 m. Table 2 presents the on-site meteorological data for 18 June.

Tuesday, 19 June. The general airflow was still from the north, though changing to anticyclonic. The inversion at 830 mbar weakened and overcast skies in the morning gradually cleared to approximately 7/10 altostratus near 3000 m by evening. Winds appeared to pick up slightly before testing began. Table 3 presents the on-site meteorological data for 19 June.

Wednesday, 20 June. The airflow was light, anticyclonic, from the north and east. Fair-weather cumulus built up during the day but dissipated towards evening. Winds tended to die down as evening approached. Table 4 presents the on-site meteorological data for 20 June.

Thursday, 21 June. The airflow was from the east and light, generally anticyclonic. Skies were clear in the morning with patchy, shallow radiation fog present at the ground level. Fair-weather cumulus built up during the day and dissipated towards evening. No testing was conducted this day.

Friday, 22 June. Friday morning dayned clear and calm, with radiation fog in the low areas. The impact area and basin were obscured by low fog, which delayed testing until 06:00 hours (local time). The on-site acoustic sounder indicated an inversion layer at approximately 100 m which gradually rose to 130 m by 07:00 hours before breaking up. Table 5 presents the on-site meteorological data for 22 June.

TABLE 2. MONDAY, 18 JUNE 1979

	REM_1			REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
19:55-20:00		No data		0	Variable	12.3
(artillery barrage -				1	210-260	12.4
54 rounds)				1-2	280-300	12.5
				1-2	270-285	13.1

Relative humidity: 80-85%

Pasquill stability category: D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

TABLE 3. TUESDAY, 19 JUNE 1979

		REM 1		REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
20:00-20:04	5.5-8	55-75	17.5	2.5-5	345-30	17.1
(artillery barrage – 18 rounds)	5-11	35-55	17.4	4.5-6.5	355-15	17.1
	7.5-12	345-360	17.0	4.5-9.5	360-25	17.4
	10-13	350-15	17.2	5.5-10	340-360	17.4
20:06-20:13 (artillery barrage -	5-9.5	55-70	17.6	3.5-7.5	355-25	17.1
	6.5-12.5	30-60	17.4	6-10	355-25	17.1
54 rounds)	7.5-13.5	345-360	17.1	6-11	5-40	17.2
	10-15.5	355-20	17.3	7-15	340~15	17.3

Relative humidity: 65-75%

Pasquill stability category: D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

TABLE 4. WEDNESDAY, 20 JUNE 1979

	REM 1			REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
20:06-20:11	2-4	350-20	18.7-18.0*	1.5-2.5	10-30	17.9-17.5
(artillery barrage -	2-3	335-350	19.0-18.6	1.5-2	355-10	18.7-18.3
54 rounds)	1.5-3	330-340	18.7-18.4	2-3	360-20	19.5-19.3
	1.5-3	360-20	19.3-18.8	2-3.5	345-350	17.9-17.7

Relative humidity: 50-60%

Pasquill stability category: D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

\*Sunset - temperature falling during this period.

TABLE 5. FRIDAY, 22 JUNE 1979

		REM 1		REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
06:11-06:16		No data taken			No data taken	ı
3 WP rounds		ght from the ea				
(static fired)	shears apparent 0-100 m; clouds stopped vertical development at 100 m. Fog beginning to thin.					
Relative humidity: 8	85-90%, dropp	ing rapidly				
Pasquill stability ca	tegory: D					
07:01-07:13	1-3	variable	18.0-19.6	i-3	115-180	18.3-19.6
1 WP round	1.5 -3	variable	17.7-18.9	1-3.5	120-180	18.0-19.4
2 HE rounds	1-3	30-135	17.1-18.5	2-4	120-170	17.4-19.2
(static fired)	1-4	30-135	17.0-18.2	1-4	85-125	17.4-18.9

Relative humidity: 65-70%

Pasquill stability category: C-B

Data are given in blocks of four, taken at ?-, 4-, 8-, and 15-m levels, respectively.

Monday, 25 June. The airflow Monday morning was cyclonic from the west. Passage of a weak front triggered rainshowers from 00:00 to 03:00 hours early Monday morning. Early morning skies were overcast with large amounts of altestratus and cirrostratus. Gradual clearing began about 06:00 hours with the sun intermittently breaking through. Winds were steady from the west and increasing. By evening the skies were mostly clear with gentle breezes from the west. Table 6 presents the on-site meteorological data for 25 June.

Tuesday, 26 June. The airflow was weak cyclonic changing to weak anticyclonic with generally light winds. The morning dawned with extreme haze to light fog. Visibility in the early morning was better along the ground than at a slight elevation angle; overhead were scattered, broken cumulus clouds. During the day the cumulus built up to approximately 5/10 cloud cover and then dissipated towards evening. Table 7 presents the on-site meteorological data for 26 June.

Wednesday, 27 June. The airflow in the morning was not dominated by any one major system; winds were light and variable, with clear skies and patchy radiation fog in low areas early in the morning. During the day, there was the normal cumulus buildup which began to dissipate towards evening until about 19:00 hours when cloud buildup and cloud cover greatly increased. Rain began about 20:00 hours and lasted until Thursday morning. Table 8 presents the on-site meteorological data for 27 June.

Thursday, 28 June. Thursday morning dawned rainy, with precipitation varying from light drizzle to steady rain until about 08:00 hours. Precipitation was due to a small, localized low pressure system which moved (west to east) down the Danube basin. Gradual clearing took place Thursday with clear skies by Thursday night. Table 9 presents the on-site meteorological data for 28 June.

Friday, 29 June. Friday we experienced the most intense and extensive radiation fog during the GRAF-II-Summer exercise. All valleys and basins were filled. During the early morning, visibility was never more than 100 m at REM 1. No meteorological data were collected for 29 June.

#### ANDERSEN SAMPLER AND MEMBRANE FILTER RESULTS

The purpose of this aspect of the test was to determine if conventional sampling techniques such as cascade impactors and membrane filters could be used to adequately provide useful information for aerosol characterization of a battlefield environment. The primary interest was to see if inertial sizing techniques could provide useful size distributions, mass loadings, and the ability to determine composition as a function of particle size. The secondary interest was to see if the membrane filters could be examined for total mass loading and for size distribution by actually counting and visually sizing the particles by observing them with an optical microscope.

TABLE 6. MONDAY, 25 JUNE 1979

	REM 1					
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Hind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
05:24	N	o data availabi	le	No	data availab	1 e
1 HE round						
(static fired)						
06:06-06:37	3-7	300-325	15.0-16.0	2-5	245-270	14.2-15.2
2 WP rounds	4-8	275-295	13.6-14.6	3-6	245-270	14.2-14.9
2 HE rounds	4 -8	240-255	13.5-14.8	5-8	255-275	13.9-14.6
(static fired)	6-9	250-265	13.0-13.6	5.5-9	225-245	13.6-14.5
20:17-20:27	3	270-290	15.8-14.9	1-2	270-360	16.3-15.1
3 HE rounds	3	240-250	17.3-16.4	1-1.5	270-105	15.5-13.9
(static fined)	3.5-4.5	180-195	18.2-17.6	1-1.5	225-75	15.8-14.2
11.60	4.5-5.5	170-200	19.0-18.6	0-2	130-180	15.8-14.4

Relative humidity: 80%

Pasquill stability category: b

Data are given in wlocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

TABLE 7. TUESDAY, 26 JUNE 1979

	REM 1			REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
06:07-06:13	1.5-2.5	60 <i>-</i> 700	14.1-14.2	1.5-2*	130-270	14.0-14.4
3 Ht. rounds	1-1.5	30-185	14.0-14.1	0.5-1	180-300	14.0-14.2
(static tired)	0.5-1.5	05-175	14.6	1-1.5	175-285	13.5-13.9
06:32-06.39	2.5-3.5	180-225	14.7-14.8	1.5-2.5	110-160	15.0-15.2
," HL counds	2-3	155 -205	14.3-14.4	1-2	115-180	14.4-14.6
(static fired)	7-3	110-155	14.7	1.5-3	115-175	14.1-14.2
Relative humidity:	75 E					
Pasquill stability c	itegory: D					
20:00-20:15	1,5-2,5**	245 -355	21.1-20.5	0.5-1.5	200-55	21.1-19.3
WP barrage	2 - 3	330 - 340	20.9-20.3	1.0-1.5	325-50	21.8-20.1
WP + HL	3-3.5	195 -320	20.8-20.4	0.5-2.5	330-25	21.6-20.4
barrage	3.5-4.5	310-345	20.9-20.7	1.0-2.5	285 325	21.0-20.1

Relative humidity: 55 60#

Pasquill stability category. D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

\*REM 2 data for first sequence available only 06:06-06:08, 06:10-06:12.
\*\*REM 1 data for evening sequence available 19:59-20:03, 20:09-20:13.
REM 2 data for evening sequence available 20:00-20:04, 20:10-20:14.

TABLE 8. WEDNESDAY, 27 JUNE 1979

	REM 1			REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
05:40-05:47	1.5-2.5	180-240	13.5-13.7	1.5-2	80-160	13.8-14.9
WP harrage	1.5-2	160-200	13.6-13.8	1.5-2	115-160	13.3-14.0
	1.5-2	105-165	13.5-14.0	1.5-2.5	95-120	13.4-14.6
	04	75-120	12.5-12.8	1-2	70-105	14.6-15.3
05:50-05:53	1-1.5	255-350	13.6-14.1	1.5-2	140-180	15.3-15.8
WP barrage	1	` 245-295	13.7-14.7	1.5-2	145-175	14.6-14.9
	1-1.5	180-230	13.8-14.4	2-2.5	120-140	14.8
	calm,2	one gust of 205	13.2-13.8	1.5-2	60-75	15.5-15.7
06:09-06:16	1-2	variable	16.1-16.9	1-2.5	185~315	17.5-17.7
HE + WP	1-1.5	40-165	16.1-16.7	1.5-2	205-325	16.8-16.6
barrage	1-1.5	variable	17.5-16.8	1-2.5	200-320	16.3-16.2
	calm,2	two gusts of 050	15.4-14.9	0-2	195-280	16.7-17.0
06:27-06:33	2-6	355-30	15.5-16.1	2-4	290-320	18.0-18.6
HE + WP	2.5-6.5	345-15	15.4-16.2	2-5	295-325	17.0-17.7
b <b>arra</b> ge	3.5-7	280-350	15.1-15.8	2.5-5	320-335	16.6-17.2
	4-7.5	315-330	13.2-13.9	2.5-6	270-300	16.4-17.2

Relative humidity: not available Pasquill stability category: D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

TABLE 9. THURSDAY, 28 JUNE 1979

	REM 1			REM 2		
Period of Testing (local time)	Wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)	wind- speed (mi/h)	Wind Direction (deg)	Temperature (°C)
05:31-05:33	1.5	250-275	15.7	1	110-175	No data
HE TOT barrage	1.5	270-290	16.0	1.5	175-300	available
(15 rounds)	1.5	210-245	16.4	1.5	No data	
	1-2.5	295-345	15.6	1.5-2	180-255	
05:59-06:04	1.5	345-40	15.9-16.0	2-2.5	30-60	
HE barrage	1.5-2	335-20	16.3-16.4	1.5-2.5	360-75	
(48 rounds)	1.5-2.5	285-345	16.7-16.8	1.5-3	No data	
	1-4	335-360	15.8-16.0	1.5-2.5	330-45	
06:12-06:22	1.5-2.5	35-76	16.0	1-2	340-40	
HE barrage	1.5-2.5	15-45	16.4-16.3	1.5-2.5	320-75	
(96 rounds)	1.5-3	325-15	16.8	1.5-2.5	No data	
	1.5-3.5	360-15	15.8-15.6	1.5-3	290-20	
07:19-07:24	2.5-8.5	20-60	15.4-15.3	2-4.5	300-20	
WP barrage	3.5-7.5	15-45	15.3-15.2	2.5-5.5	305-40	
	3.5-10	335-360	15.2-15.1	2.5-5.5	No data	
	5-10	360	15.3-15.2	3-8	3:5-345	

Relative humidity: 90-95%

Pasquill stability category: E-D

Data are given in blocks of four, taken at 2-, 4-, 8-, and 15-m levels, respectively.

## Background

Because of the problems associated with light scattering particle spectrometer measurements (such as knowledge of the complex refractive index of the particles, particle shape, birefringence, and multicomponent mixtures of particles with different indices), the possibility of utilizing cascade impactors to characterize the aerosol was also assessed during the GRAF-II-Summer field tests.

Eight-stage Andersen ambient cascade impactors with a final filter stage and a preseparator unit were selected for this evaluation. These samplers have effective cutoff diameters as shown in table 10. These values are for a specific gravity of 1.0 and are aerodynamic diameters. If the particles are spherical, then the aerodynamic size is defined by  $Da = \rho^{1/2}Dp$ , where Da is the aerodynamic diameter, Dp is the physical diameter, and  $\rho$  is the specific gravity of the particle (and is taken to be 2.6 for our tests). The Dp are also listed in table 10. The Dp values are calculated from the relation

$$Dp = \frac{(18\mu \psi N \pi t D_c^3)^{1/2}}{4C\rho Q}, \qquad (1)$$

where u is the gas viscosity (1.84 x  $10^{-4}$  poise), N is the number of orifices per stage,  $\psi$  is an impaction parameter (0.14), t is 60 s/min, Dc is the orifice diameter in centimeters, C is the Cunningham slip factor (1 + 0.165/Dp), and Q is the flow rate (2.83 x  $10^{4}$  cm³/min).

The data collected with cascade impactors are usually fit to lognormal distributions when sizing is to be determined. Each stage is weighed before and after sampling so that the amount of sample can be determined for each sage, including the filter and preseparator. The total mass of sample collected can thus be determined. From this value and the flow rate and sampling time, the total mass loading is determined. The percentage of mass collected on each stage is determined and then the cumulative percent less than each size range is determined. This cumulative percent versus effective cutoff diameter is then plotted by using log probability graph paper, and a least squares fit is made to the data. The geometric standard deviation,  $\sigma_{\rm g}$ , and the geometric mean diameter,  $D_{\rm g}$ , can be immediately determined from the graph. The geometric standard deviation is given by

$$\sigma_{g} = \frac{84.13\% \text{ diameter}}{50\% \text{ diameter}}, \qquad (2)$$

while the D $_{q}$  is the value of the diameter at the 50 percent point. The  $\sigma_{q}$  and D $_{q}$  define the lognormal distribution for the mass. This distribution may be converted to a number size distribution by assuming that the  $\sigma_{q}$  are the same

TABLE 10. FIFTY PERCENT EFFECTIVE CUTOFF DIAMETERS FOR THE ANDERSEN CASCADE IMPACTOR

Stage	ECD(ρ = 1) (μm)	ECD(ρ = 2.6) (μm)
Preseparator	10	6.20
0	11.0	6.99
1	7.0	4.46
2	4.7	3.02
3	3.3	2.06
4	2.1	1.32
5	1.1	0.66
6	0.65	0.40
7	0.43	0.27
F	0 to 0.43	0 to 0.27

and by noting that the geometric mean diameter by number, D', is related to the geometric mean diameter by mass, D\_g, by the relation

$$\ln D_{g}' = \ln D_{g} - 3 \ln \sigma_{g}$$
 (3)

Thus having obtained  $\sigma_g$  and  $\mathsf{D}_g,$  the normalized lognormal distribution is given by

$$\frac{dn(D)}{d(\ln D)} = \frac{1}{\sqrt{2\pi} \ln \sigma_g} \exp \left[ -\frac{(\ln D - \ln D_g^{\dagger})^2}{2 \ln \sigma_g} \right]. \tag{4}$$

The quality of the linear least squares fit to the graphical presentation of the data will determine whether or not the lognormal distribution is an appropriate distribution to use.

#### Test Conditions and Procedures

The work was a combination of field measurements and laboratory analysis. Upon arrival at the test location, we constructed a fortified sampling site on the artillery range. Three 2-m-tall, metal frame towers were set up around the "sand castle." Each tower was instrumented with an Andersen cascade impactor and a 47-mm membrane filter holder. The impactor was situated in a cast iron steel box with 1-in-thick walls and mounted on top of the tower. The filter holder was attached parallel to the box. The samplers had 12 Vdc vacuum pumps which were calibrated to a flow rate of 1 ft³/min by using a Bendix Rotameter. Commercial 12 V automobile batteries were used to provide power. A sampler could be run for 2 h satisfactorily with the battery power. The vacuum pumps, the batteries, and an electronic timer were put at the bottom of the tower and were protected by sandbags.

Primarily, glass fiber filter substrates were used as the collection surfaces in the impactor; although aluminum foil and metricel/substrates were used occasionally. These substrates are all nonhygroscopic and very light; however, the fiberglass was preferred because of its very stable weight and ease in handling. Millipore 0.45 $\mu m$ , ultrathin, cellulose membrane filters were used in the 47-mm filter holder. These filters were selected for their high collection efficiency and because they are easily soluble in acetone for later removal of the particles if desired.

A laboratory was set up on the main post. A Mettler analytical balance, model HT-20, was used for all sample weighings. The weighing accuracy of the balance is about  $\pm 0.02$  mg. The balance was isolated from vibration. A desiccator was used to desiccate the substrates and filters.

Before a test, the filters and substrates were desiccated for 24 hours, weighed, and loaded into the samplers. The samplers were then taken to the field test site. An electronic timing circuit was built and used to turn the

samplers on and off at designated times. A run time of 1 h was generally selected for most tests. This time proved to be highly unsatisfactory because the tests did not start on schedule; and on several occasions, this time schedule resulted in sampling only ambient air for 1 h and missing the test entirely. Also, on a few occasions the timer malfunctioned and no sample was collected. After a test, the sampler was removed and taken to the laboratory for unloading and preparation. Transportation to and from the sampling site was by either a 5-ton flatbed truck or by a German Army armored personnel carrier over very roughly formed roads. The samplers were severely jostled in this process, and this jostling resulted in the loss of some of the sample from the 47-mm filters which were usually heavily loaded with large particles. The determinations from the filters are therefore questionable.

While at the test area, we generally had only 10 to 15 min of preparation time available because of the artillery range firing schedule. On several occasions, this short time trame necessitated setting up the samplers 12 to 24 h in advance of a test.

#### Results

The samples were analyzed for composition and size. The composition was determined by potassium bromide IR pellet spectroscopy and by scanning electron microscope (SEM) microprobe analysis. Several of the sets of impactor stages were examined to see if composition varied with particle size. No such variation was observed; however, the backfilter which collected all particles less than  $0.43\mu m$  diameter could not be satisfactorily analyzed and there may have been carbon particles on this stage. The SEM elemental analysis was 71 percent silicon, 9 percent potassium, 18 percent aluminum, and 2 percent magnesium. The IR transmission analysis showed the samples to be predominately Kaolin clay material and some quartz.

The 47-mm filter samples for each test were analyzed for imaginary refractive index in the  $0.3\mu m$  to  $1.7\mu m$  spectral region; all values measured by diffuse reflectance spectroscopy showed the imaginary index of each sample to be less than 0.0005 (the lower limit of the measurement). A size distribution count with an optical microscope was attempted for two of the filters; however, the filters had an excessive amount of sample and a count was not particularly meaningful. The count did show that about 95 percent of the particles by number count were less than  $10\mu m$  in diameter, but an accurate size distribution was impossible to determine.

A few cascade impactor samplings were potentially useful. These samplings are:

18 June (Annihilation barrage). At 0600 hours a relative, nonnormalized size distribution with parameters  $\sigma_q=16.76$ ,  $D_g=4.20$  was obtained. The least squares fit gave a coefficient of determination,  $r^2$ , of 0.97. The samplers were blasted apart by direct hits, but the sample was intact. The length of time of sampling is unknown. The distribution is very broad and very crude.

- 22 June (static HE and WP combined). This combination produced a very good sample but was probably meaningless since it showed a distinct two-component aerosol. The small particles are smoke and the larger particles are soil. Total mass = 21.0 mg,  $\sigma_g$  = 6.02,  $D_g$  = 1.63µm, the  $r^2$  = 0.99. Note: There was no timer control and the pumps ran until the batteries drained; also, the test slid about 1-1/2 hours past its scheduled time. Stage 7 and the filter stage were considerably darker than the rest of the sample.
- 25 June (static HE-3 rounds). This sampling was broad distribution; however, only 1.37 mg of sample were collected. The sampling time was 31 min during the time of 0516 to 0532 hours and 0627 to 0642 hours.  $\sigma_g$  = 4.06,  $D_g$  = 1.93 µm, and  $r^2$  = 0.99.
- 25 June Evening (static HE). This sampling produced a good measurement with 18.8 mg of total mass collected in a time of 20 min or less.  $\sigma_g$  = 8.53,  $D_q$  = 3.22  $\mu m$ , and  $r^2$  = 0.98.
- $\frac{26\ \text{June}}{6.96\ \text{mg}}$  with a mass loading of  $696\mu\text{g/m}^3$ .  $\sigma_g=4.22,\ D_g=1.60\mu\text{m},\ \text{and}\ r^2=0.99.$
- 27 June (HE barrage). Sampling time was from 0520 hours to 0615 hours. Total mass = 21.24 mg,  $\sigma_g$  = 22.31, D = 4.87  $\mu m$ , and r² = 0.89.

#### Remarks

The annihilation barrages were extremely difficult to sample and generally disabled the samplers. The timers were sensitive to shock and malfunctioned on several occasions. When tests did not take place as scheduled, either no sample was collected or a mixed sample was obtained. The HE rounds produced soil particle aerosol with essentially one component. No explosion burn material was found in the composition analysis. The size distributions obtained with impactors are averages over a relatively long time period (for explosions) and strongly depend on how far away the explosion was and on the wind direction. For meaningful results, more control over the sampling time and the location of the explosions are both necessary. Samples collected on membrane filters can probably be used to give compositional results only, but total mass loading may be obtainable if great care is taken.

## PARTICULATE SPECTROMETER MEASUREMENTS

In these tests, the particulate spectrometer was located directly in the impact area and was protected from explosions by Landbags. Several weeks before the measurements in Germany, we conducted a series of tests at White Sands, New Mexico, to verify that the shock wave from an HE detonation would not seriously affect the instrumentation. We verified that 15-lb blocks of TNT fired as near as 5 m away from the particulate spectrometer produced no ill effects. With this in mind, we designed a system which consisted of one

instrument (a PMS, Incorporated, model FSSP-100C) and data recording equipment mounted in a metal enclosure buried in a mound of sandbags. The measurement intake of the Knollenberg counter barely protruded from the protective "sand castle" at the top, at a distance of 2 m above ground level. This altitude was chosen to place the instrument almost directly in the path of the Night Vision and Electro-Optical Laboratory transmissometer at the point where the path passed through the impact area. This placement involved accepting some degree of risk to the equipment; however, a hit almost directly on the sand castle would be required to experience serious damage.

Due to the severe limitations imposed by the nature of the test, only one particulate spectrometer was used. It and its data recording equipment were battery operated and activated by a preset timer. Thus no direct control was possible. A recording time interval of about 45 minutes was chosen in advance in the hope that this time would coincide reasonably well with the day's planned explosions. The use of only one instrument imposes a limitation on the resulting number density spectra. This limitation is not trivial and will be discussed in the concluding section of this report.

The particulate spectrometer measures particle number density as a function of particle size (diameter) by examining airborne particles essentially one at a time, estimating each particle's size, and assigning the particle to one of 15 "channels" each of which corresponds to a fixed diameter interval. These 15 channels then constitute a diameter range for the instrument. The FSSP-100C has four operator preselectable size ranges and can also be operated in an "autoranging" mode where it automatically cycles through all four ranges in sequence. Thus during this test operation, choices were made in advance, and the consequences of such choices must be remembered when drawing inferences from the data. This situation is also discussed in the concluding section.

The PMS, Incorporated, FSSP-100C particulate spectrometer is an optical instrument which actually measures forward scattered light as a particle passes through a laser beam. Particle size is inferred from this signal. Since the forward scattered energy is also dependent on the complex refractive index of the particle as well, the effective size ranges and channel width subdivision depend on particle composition. Thus they are different for operation in dust as compared to operation in fo. The details of particle size ranges and channel width for both kinds of aerosols are summarized in table 11. The information in table 11 was provided by the manufacturer of the instruments.\*

This report presents both the measurements and some straightforward calculations based on them. The basic data were collected at 1-s intervals. Each second of data consists of 15 integers each of which represents the number of particles encountered by the instrument in 1 s with a diameter that falls within the limits of that particular channel. The data are grouped in

<sup>\*</sup>Robert G. Knollenberg, December 1979, Particle Measuring Systems, Inc., Boulder, CO, private communication

TABLE 11. SIZE MEASUREMENT RANGES AND CHANNEL WIDTHS FOR FSSP-100C, SN 617-0178-18

For Use in Fog

Range Width,	Channel Width,
Radii in µm	Radii in µm
1-23.5	1.5
1-16	1
0.5-8	0.5
0.25-4	0.25
	Radii in μm  1-23.5  1-16  0.5-8

For Use in Soil Dust

Size Range Designation	Range Width, Radii in μm	Channel Width, Radii in um
100	1-31	2
110	1-21	1.33
120	0.5-10.5	0.66
130	0.25-5.25	0.33

Instrument Sampling Rate, 8.28 cc per second

"frames" of 10 s in our magnetic tape format, and within any one frame the instrument operated on one size range, that is, on one group of 15 size channels. During most of the test, we operated continuously on range 100, although in one or two cases we exercised the "autoranging" capability wherein each successive frame is a different instrument range, thus giving a wider total spectral measurement capability at the price of poorer temporal resolution.

The calculations that we have made depend on some unavoidable assumptions. The mass loading calculated each second was arrived at by using an estimate of 2.6 for the specific gravity of the dust particles and simply integrating the volume of the particles in each size channel, assuming that all particles collected within a channel have a diameter equal to the arithmetic average of the channel limits. A similar assumption has been used in the application of Mie theory to arrive at extinction coefficients at five wavelengths, specifically 0.55, 1.06, 3.80, 9.35, and 10.6 micrometers. In addition, we have also had to choose complex refractive indices for use in the Mie calculations at these wavelengths in the case of dust; our choices are listed in table 12. These choices were made as best estimates on our part based on our own laboratory work as well as information generally available in the literature.

TABLE 12. COMPLEX REFRACTIVE INDICES USED IN CALCULATIONS

Wavelength (μm)	Refractive Index
0.55	1.55 - 0.00011
1.06	1.55 - 0.0001i
3.80	1.50 - 0.001i
9.35	1.00 - 1.7i
10.6	1.70 - 0.2i

While the main objective was to measure the properties of dust and smoke clouds generated by explosions, we also encountered several fog occurrences. Although the fog data are not an important part of the test, we have included them in this report without further comment because they are documented examples of German summertime ground fog, something not normally part of the overall data base. Fog data were collected for two periods on the morning of 22 June and another on the morning of 25 June. For these intervals, the data were reduced by using complex refractive indices, a specific gravity, and

FSSP-100C channel definition appropriate for water droplets. The remaining data were treated as soil dust. An inventory of what sort of data are included in this report is provided in table 13. The time intervals shown in table 13 are those over which particulate data were recorded. However, during much of the time, no significant events were occurring; therefore, to reduce the bulk of the report, we have deleted segments of time from the block of data presented here. In each case we have included some of the data before test events occurred and all of the data intervals where the atmosphere was perturbed by explosions.

In this report the basic data and calculated results are presented in the appendix. An example is provided in table 14, and an explanation of the format is included here. The sample in table 14 was chosen because it illustrates most of the significant data format features. It shows the result for a single 155-mm HE round detonated at a distance of 40 m from the "sand castle" containing the Knollenberg counter. The general features of the data format are the result of software inherent in the design of the particle spectrometer itself.

In table 14 there are 40 consecutive seconds of data, each represented by one line in the table. The data are grouped into four "frames" of 10 seconds each; and in any one frame, the "particle diameter range" (as discussed earlier) is the same for all lines and is designated by the phrase "probe range 100" (or 110, 120, or 130 as the case may be). Also indicated in the heading are the day, month, year, and time in hours, minutes, and seconds of the first line of data in the frame. In a single 1-s line of data, the first 15 numbers on the left part of the page are the raw data, counts per channel from the FSSP-100C. The remaining 5 numbers in each line are the mass loading in grams per cubic centimeter for the aerosol particles and the extinction coefficient in reciprocal meters calculated for each of four wavelengths as described above. For each frame of data we have also listed above each data channel the average particle diameter for that channel, in micrometers.

Table 14 shows that for the first few seconds the instrument was sensing no really significant number of particles, just the normal "clear" air background, until 6:11:54 when the instrument became enveloped by a dust cloud. Note in particular the string of apparently meaningless numbers at 6:11:53 in channels 3 through 15. Where such single 1-s lines occur in the data, they are normally the instruments' response to the shock wave from a nearby explosion, and the corresponding calculations should be disregarded. Keeping in mind that particle size increases to the right for the 15 data channels in the example, one can clearly see the time dependent changes in the particle size distribution of the dust cloud. Several immediately obvious features of this size distribution variation are worth noting since they may be of interest in connection with model development or validation.

From the data gathered on 26 June, we have plotted particulate mass loading for two time intervals as indicated in figures 12 and 13. Figure 12 shows mass loading for three statically detonated 155-mm HE rounds fired at locations F-6, C-8, and B-6 which were about 24, 34, and 30 m, respectively, from the particulate spectrometer. Figure 13 shows similar results for two live fired 155-mm rounds during a barrage. These figures show that such explosions can generate peak mass loadings in excess of  $1~\mathrm{g/m^3}$  at distances as

## TABLE 13. DESCRIPTION OF DATA BLOCKS INCLUDED IN REPORT\*

22 June, 02:00 to 02:15 hours (local standard time)

Patchy ground fog, instrument in autoranging mode

22 June, 04:39 to 05:37 hours

Ground fog, severe enough to delay test so that recording time ran out before test explosions occurred

22 June, 06:29 to 07:26 hours

WP static round, location E-4, fired about 07:01:30 HE static round, location E-5, fired about 07:04:27 HE static round, location E-6, fired at 07:12:16

25 June, 03:00 to 04:00 hours

Haze, autoranging mode

25 June, 05:20 to 05:30 hours

HE static round, location A-6, fired at 05:24:35

26 June, 05:51 to 06:20 hours

HE static round, location F-6, fired at 06:05:53 HE static round, location C-8, fired about 06:08:54 HE static round, location B-6, fired at 06:11:53

26 June, 19:19 to 20:14 hours

Tube delivered HE, WP, including WP barrage

27 June, 20:10 to 21:00 hours

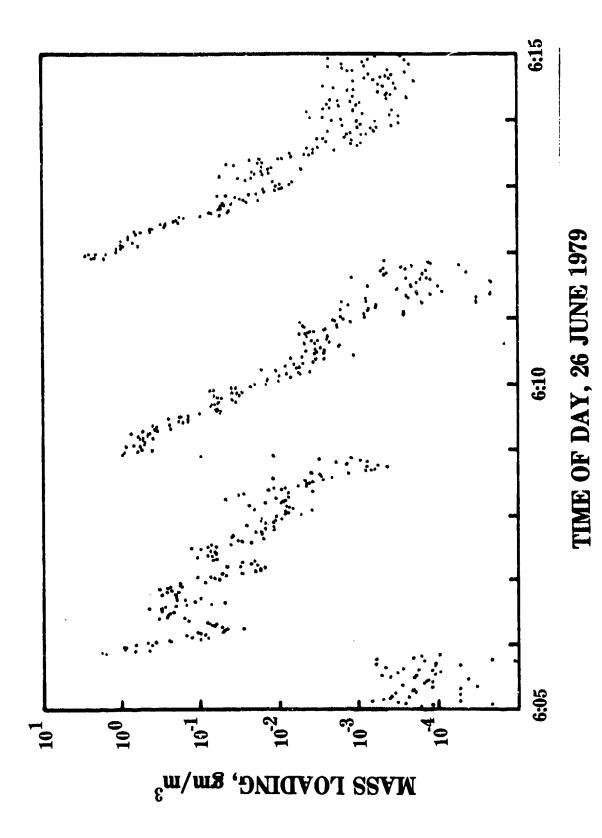
Tube delivered rounds in rain

28 June, 05:17 to 06:10 hours
Heavy HE barrage

\*Primarily on magnetic tape; for partial printout see the appendix.

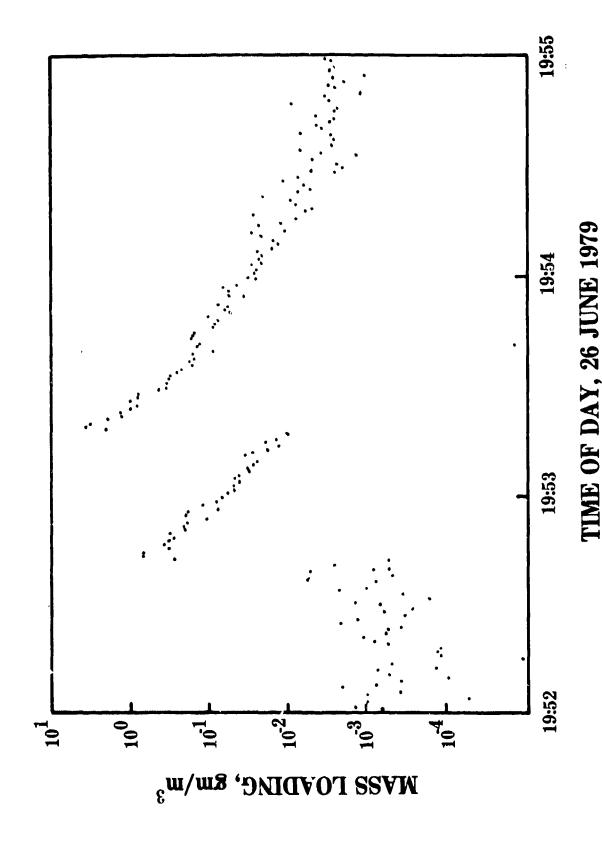
TABLE 14. EXAMPLE OF PARTICULATE SPECTROMETER DATA AND RESULTING CALCULATIONS

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ф D D D D D D D D D D D D D D D D D D D	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	40 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	The control of the
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CC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	20	1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			20	1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	######################################
E RANGE 100 FRAME NUMBER 120  1 22.0 36.0 40.0 44.0 48 0 52.0 30.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			20000000000000000000000000000000000000	######################################
EERANGE 100 FRAFE NUMBER 129  132.0 56.0 40.0 44.0 48 6 52.0 50.0 60.0 60.0 60.0 60.0 60.0 60.0 60			200	######################################
EE RANGE 100 FRAME NUMBER 129  18 MICROMETERS  18 MICROMETERS  19 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			250	######################################
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Particulate mass loading variation with time for three statically detonated 155 mm HE rounds fired at distances of 24, 34, and 30-m, respectively, from the particulate spectrometer. Values averaged over 5-s intervals. Figure 12.

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Particulate mass loading variation with time for an interval during a barrage fired at the instrumentation. The results of two projectile impacts within a few tens of meters of the instrument can be seen. Values averaged over 5-s intervals. Figure 13.

far as 30 m from the explosion and that these aerosols dissipate significantly after 1 or 2 minutes. These figures also show much shorter time scale variations that presumably are related to turbulence cells or other explosion cloud inhomogeneities.

Another more subtle but interesting feature of these data can be seen by examining table 14. Note that for the larger particles the peak detected number density occurred almost immediately after the explosion, whereas smaller particles, such as those in the third or fourth channel did not show maximum number density until several seconds later; and the first channel, containing number density information for the smallest particles, shows its maximum more than 15 s after the explosion.

In the general block of data presented in the appendix, there are several examples of time dependent spectra measured within a few meters of 155-mm projectile explosions similar to those illustrated above, along with others obtained within the impact zone of live 155-mm howitzer barrages.

### CONCLUSIONS AND RECOMMENDATIONS

One conclusion to be drawn from this work is that, as a practical matter, one can place instrumentation directly in the target zone during artillery firings while incurring an acceptable, though not trivial, risk to equipment and thereby obtain particle size distribution measurements beginning almost with the first second after 155-mm HE round explosions only a few meters away from the instrument. In this test series, the sandbag protected particulate spectrometer survived the results of several dozen rounds and was finally put out of operation by a round which appears to have impacted about 2 m from the The particulate spectrometer was damaged by a small piece of shrapnel which destroyed its optical system; the damage was similar to what might be expected from a small caliber rifle bullet. The electronic systems, including tape recorders and the internal helium-neon laser, survived this and many subsequent explosions and continued to operate until the end of the test. The instrument damage occurred at 5:59:39 hours on 28 June, as is evident in the data presentation in the appendix.

We have presented some calculations of mass loading based on particulate spectrometer data. The result shows that during occasional periods of time during the few seconds immediately after an explosion which was very close to the instrument the mass loading could get as high as 2 or 3 g/m³. Since the instrument was usually operating on range 100, only particles in the  $2\mu m$  to  $62\mu m$  diameter range were included. Some small amount of mass was also present in the smaller particle ranges. Measurements made from a helicopter borne payload in the DIRT-I test conducted at White Sands Missile Range in October 1978¹ showed mass loadings that were as high as 10 g/m³ several tens of

J. D. Lindberg et al, January 1979, Measured Effects of Battlefield Dust and Smoke on Visible, Infrared, and Millimeter Wavelength Propagation: A Preliminary Report on Dusty Infrared Test-I (DIRT-I), ASL-TR-0021, US Army Atmospheric Sciences Laboratory, White Sands Missile Range, NM

seconds after similar explosions and at higher altitudes above ground level. The results of the two tests suggest that the damp soil with much more vegetation produced less dense dust clouds than the desert soil produced. However, one must be cautious when using these particulate spectrometer data for mass loading calculations because of uncertainties in absolute counting efficiencies of the instruments as well as assumptions that are required in the data reduction process.

An examination of the calculations presented in the appendix gives an idea of the wavelength dependence of extinction for the explosion dust events. However, the calculations presented are for only five monochromatic wavelengths and are based on current but not perfect knowledge of complex refractive indices and the assumption that the particles are spherical, a requirement for application of Mie theory. These problems all introduce some uncertainty into the calculations, and therefore the values listed should not be used to make highly quantitative comparisons. Note that in dust the calculations show that longer wavelengths have a somewhat higher extinction than visible light. This difference is due partly to the limited size distribution range ( $2\mu m$  to  $62\mu m$ ) of particles that were measured when the instrument was operating on range 100. In such cases the particles with diameters less than 2um are being ignored, and these particles contribute considerably more to short wavelength extinction than they do to extinction at consideration of this kind of problem in these data as well as in data from the DIRT-I work mentioned above has shown that particles in the general size range from about 0.5µm to at least 60µm diameter are present in sufficient numbers to be important at various times in such explosion dust The data in the appendix or even the data sample in table 14 show also that significant changes occur in just a second or two in these clouds. In the GRAF-II-Summer test reported here, only one particulate spectrometer could be run. As shown in table 1, the spectrometer is capable of measuring particles as small as 0.5mm and as large as 62mm, but only at a price of loss of temporal resolution required by use of the autoranging feature as was done in some examples of fog presented in the appendix. Therefore, one cannot really expect one instrument to provide complete data in this kind of test. In future tests of this kind we strongly recommend that several counters be used, operating simultaneously, so that each second a complete spectrum from 0.5um to about 60um is recorded. In the meantime, when using calculations of the sort presented in the appendix one must be cautious in making A reasonable conclusion from the appendix is that there is no inferences. really important wavelength dependence to the extinction in these dust clouds, but some variation must be expected. Similarly, the mass loading calculations must be considered only approximate.

In the fog data, particularly when the visibility was not exceptionally low, such as in the haze data on 25 June, a strong wavelength dependence is shown as would be expected. Since time resolution was not important, the instrument was operated in autoranging mode in some of the fog cases, thus producing a more complete measurement. For these data the assumption of spherical particles is more valid and the refractive indices are more well-known; therefore, the calculations are much more reliable. The strong wavelength dependence, of course, arises from the preponderance of small droplets in haze size distribution, as expected.

## **APPENDIX**

## SAMPLE SPECTRA AND CALCULATED RESULTS

All of the particle size distribution data for the time intervals indicated in table 13 of this report have been reduced and stored on magnetic tape along with calculations of mass loading and extinction as indicated in the example shown in table 14. Since these results are far too bulky to include completely in this report, we have confined this appendix to selected time intervals containing the more significant data. In the case of fog data, only trivial samples are included since fog measurements were not really part of the objective. We hope that the tabulation presented here will show the major quantitative features of the data. Anyone interested in pursuing the subject in more detail can obtain a full data tape from the Atmospheric Sciences Laboratory.

## CUNTENTS OF APPENDIX

22	June, 02:09:50 to 02:10:29 hours Early morning ground fog	39
22	June, 05:00:30 to 05:01:09 hours Ground fog, severe enough to delay test	40
<b>2</b> %	June, 07:11:40 to 07:16:19 hours Results from one 155-mm HE round statically fired at 07:12:16 at location E-6	41
<b>2</b> 5	June, 05:24:00 to 05:25:19 hours Results from one 155-mm HE round statically fired at about 06:24:34 at location A-6	49
26	June, 06.05:00 to 06:14:59 hours This 10-minute interval of data is that from which figure 13 was generated. It contains the results of three 155-mm HE static firings, one round at location 7-6 at 06:05:52 hours, a second at location 0-8 at about 06:08:53 hours, and a third at location 8-8 at 06:11:53 hours.	50
26	June, 19:52:20 to 19:54:59 hours Data collected during 155-mm HE verification rounds, also shown in figure 14	65
26	June, 20:08:20 to 20:11:39 hours  Data collected during mixed 155-mm HE and WP barrage	69
27	June, 20:45:40 to 20:51:39 hours Mixed 155-mm HE and WP firings in rain	74
28	June, 05:57:00 to 06:00:19 hours  HE barrage. Note that at 05:59:38 hours the instrument's optical system was damaged although the electronic equipment continued to operate	80

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- 115. Fawbush, E. J., et al, "Characterization of Atmospheric Conditions at the High Energy Laser System Test Facility (HELSTF), White Sands Missile Range, New Mexico, Part I, 24 March to 8 April 1977," ASL-TR-0044, November 1979.
- 116. Barber, Ted L., "Short-Time Mass Variation in Natural Atmospheric Dust," ASL-TR-0045, November 1979.

- 102. D'Arcy, Edward M., "Accuracy Validation of the Modified Nike Hercules Radar," ASL-TR-0031, May 1979.
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- 104. Barber, T. L., and R. Rodriguez, "Transit Time Lidar Measurement of Near-Surface Winds in the Atmosphere," ASL-TR-0033, May 1979.
- 105. Low, Richard D. H., Louis D. Duncan, and Y. Y. Roger R. Hsiao, "Microphysical and Optical Properties of California Coastal Fogs at Fort Ord," ASL-TR-0034, June 1979.
- 106. Rodriguez, Ruben, and William J. Vechione, "Evaluation of the Saturation Resistant Crosswind Sensor," ASL-TR-0035, July 1979...
- 107. Ohmstede, William D., "The Dynamics of Material Layers," ASL-TR-0036, July 1979.
- 108. Pinnick, R. G., S. G. Jennings, Petr Chylek, and H. J. Auvermann, "Relationships between IR Extinction Absorption, and Liquid Water Content of Fogs," ASL-TR-0037, August 1979.
- 109. Rodriguez, Ruben, and William J. Vechione, "Performance Evaluation of the Optical Crosswind Profiler," ASL-TR-0038, August 1979.
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- 112. Heaps, Melvin G., and Joseph M. Heimerl, "Validation of the Dairchem Code, I. Quiet Midlatitude Conditions," ASL-TR-0041, September 1979.
- 113. Bonner, Robert S., and William J. Lentz, "The Visioceilometer: A Portable Cloud Height and Visibility Indicator," ASL-TR-0042, October 1979.
- 114. Cohn, Stephen L., "The Role of Atmospheric Sulfates in Battlefield Obscurations," ASL-TR-0043, October 1979.
- 115. Fawbush, E. J., et al, "Characterization of Atmospheric Conditions at the High Energy Laser System Test Facility (HELSTF), White Sands Missile Range, New Mexico, Part I, 24 March to 8 April 1977," ASL-TR-0044, November 1979.
- 116. Barber, Ted L., "Short-Time Mass Variation in Natural Atmospheric Dust," ASL-TR-0045, November 1979.

- 117. Low, Richard D. H., "Fog Evolution in the Visible and Infrared Spectral Regions and its Meaning in Optical Modeling," ASL-TR-0046, December 1979.
- 118. Duncan, Louis D., et al, "The Electro-Optical Systems Atmospheric Effects Library, Volume I: Technical Documentation," ASL-TR-0047, December 1979.
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- 127. Duncan, Louis D., and Richard D. H. Low, "Bimodal Size Distribution Models for Fogs at Meppen, Germany." ASL-TR-0056, April 1980.
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- 131. Miller, Walter B., "User's Guide for Passive Target Acquisition Program Two (PTAP-2)," ASL-TR-0060, June 1980.
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- 133. Shirkey, Richard C., August Miller, George H. Goedecke, and Yugal Behl, "Single Scattering Code AGAUSX: Theory, Applications, Comparisons, and Listing," ASL-TR-0062, July 1980.
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- 136. Yee, Young Paul, Charles W. Bruce, and Ralph J. Brewer, "Gaseous/Particulate Absorption Studies at WSMR using Laser Sourced Spectrophones," ASL-TR-0065, June 1980.
- 137. Lindberg, James D., Radon B. Loveland, Melvin Heaps, James B. Gillespie, and Andrew F. Lewis, "Battlefield Dust and Atmospheric Characterization Measurements During West German Summertime Conditions in Support of Grafenwöhr Tests," ASL-TR-0066, September 1980.